

REMARKS/ARGUMENTS

This Amendment and Response is in response to the Office Action mailed August 11, 2004.

Applicant confirms election of invention I, Claims 1-22. Claims 23-28 are withdrawn.

Claims 1-12 and 14-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hirsch U.S. Patent 4,352,614. Claims 15, 21 and 22 are rejected under 35 U.S.C. § 102(b) as anticipated by Flax U.S. Patent 3,446,688. Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Flax as applied to Claims 15, 21 and 22, in view of Hirsch. Applicant respectfully disagrees with the Examiner's position, as more fully detailed below, and requests reconsideration and allowance of the claims as presented herein.

The Hirsch '614 patent is directed to a tamper-resistant threaded fastener. As most clearly shown in Fig. 1, the fastener comprises an elongate body portion 12 having a base 14 at one end and an opening 16 at the opposite end. The elongate body is hollow and threaded to receive complementary threaded bolt 18. A flange 25 extends radially outwardly from the base 14. A driving portion 24 extends upwardly from the outer perimeter of the flange 25. The driving portion comprises a cylindrical collar 26, which terminates in an end surface 32. Six similarly shaped recesses 34 are circumferentially spaced about the collar portion. The recesses form generally sawtooth-shaped driving members having a driving surface 36 and an adjoining angled surface 38. An annular well 30 separates the driving portion 24 from the elongate body portion 12.

Hirsch cannot anticipate Claim 1 because Hirsch lacks one of the claimed elements, namely, the recited flat positioned adjacent the base of the drive face wall. In Hirsch, as illustrated in Figs. 1, 2 and 4, the angled surface 38 extends from between the base of the drive surface 36 and the end surface 32. Thus, there is no flat as recited in Claim 1. The space between the drive face wall and the ramp created by the flat directly relates to the thickness (e.g., mass) of the driver. Having a larger mass or body allows the driver to apply either or both of an increased force and an increased speed to the drive face wall and drive face body. This causes the two members to be joined together more quickly and increases throughput in an automated assembly line. In addition, the flat permits the mating surface of a driver to fully engage the entire face of the drive face wall to achieve optimum speed and torque. In comparison, because the angled surface 38 of Hirsch adjoins the base of the

drive surface 36 and extends outward and upward from the base of the drive surface 36, an angle is formed at the base of surface 36 by ramp 38. Therefore, a driver must have the same angled profile to fully fit in the recess 34 in order for the driver to engage the full face of drive surface 36. Such an angled profile prohibits a driver having additional mass at its base. Alternatively, if the driver did have a thickness or depth along its bottom edge, the angle formed by the ramp would necessarily preclude the driver from fully engaging the entire drive surface 36. The driver could not fully extend to the bottom of the recess. In either case, the driver would only partially engage the drive surface which could cause a shearing of the drive surface and drive. Therefore, lacking the requisite flat structure, Hirsch cannot anticipate Claim 1. As a result, Claim 1 and dependent Claims 2-14 and 29-31 are allowable.

Hirsch also cannot anticipate Claim 2. Claim 2 recites, among other things, a member having a drive support and a drive, and further recites that the drive support has a first border section and that the drive is joined along and extends from at least portions of the first section border such that the total height of the member is defined by the drive support height and the drive profile. Unfortunately, the Examiner's stated reasoning for rejecting Claim 2 based upon Hirsch fails to identify what elements of Hirsch form the claimed drive support and drive. Nonetheless, Hirsch lacks this requisite structure. The total height of the Hirsch fastener is defined solely by the elongated body portion 12. As illustrated by the figures of Hirsch, the elongate body 12 is taller than the drive support 24 (comprising the height of collar 26 and surfaces 36). Thus, if Applicant starts with the fact that the elongate body 12 defines the total height of the fastener, then Hirsch fails to anticipate Claim 2 because the elongate body 12 does not comprise a drive support and a drive as required by Claim 2. Alternatively, to the extent the claimed drive support and drive is purportedly shown by the drive support 24 of Hirsch, comprising the collar 26 and the teeth-like structures formed by recesses 34 (i.e., the outer perimeter wall of the fastener), this structure fails to define the total height of the member as required by Claim 2 because the elongate body has a greater height. Therefore, Claim 2 is allowable over Hirsch.

Claim 3 requires that the flat is positioned between the base of the drive face wall and ramp. Because Hirsch lacks this element as explained in connection with Claim 1, it cannot anticipate Claim 3.

Claim 5 requires a bounded segment that closes off the member. The Examiner has provided no information as to how Hirsch discloses this element. In fact, Hirsch does not disclose a bounded segment that acts as a closure to close off the member. To the opposite, the elongate body portion 12 of Hirsch is open and includes a threaded axial bore 16 to permit a threaded bolt 18 to pass through it. Thus, Hirsch shows an open member rather than a member that is closed by a bounded segment. If anything, Hirsch teaches away from Applicant's invention. Therefore, Hirsch does not anticipate Claim 5. Accordingly, Claim 5 is allowable.

Claim 6 recites that each of the claimed flat, drive face and ramp have angular extents defined from a central axis extending through the center of the drive support, and that the ramp angular extent is greater than the drive face angular extent which, in turn, is greater than the flat angular extent. The Examiner has failed to show how Hirsch discloses the invention of Claim 6. In fact, Hirsch fails to disclose the claimed structure. As discussed above with respect to Claim 1, Hirsch lacks the claimed flat. In Figure 1 of the present application, one embodiment of the flat 46 is that portion of the member that extends from the drive face wall 54 to the base of the ramp 46. Hirsch has no such structure. In Hirsch, the ramp 38 starts at the base of the drive surface 36. In addition, because Hirsch lacks one of the requisite claimed elements, it necessarily fails to disclose the angular extent for the missing flat and, similarly, fails to disclose the relationship among the three angular extents recited in Claim 6. Accordingly, Hirsch fails to anticipate Claim 6. As a result, Claim 6 is allowable.

Similarly, with respect to Claims 7 and 8, there is no teaching or disclosure of any kind in Hirsch of the specific angular extents recited by these claims. Therefore, Claims 7 and 8 are also allowable.

With respect to Claim 9, the Examiner fails to show how Hirsch discloses a drive profile that is less than one-half of the drive support height. As stated above with respect to Claim 1, the Examiner has failed to identify what components of Hirsch qualify as the drive and the drive support.

If the drive of Hirsch comprises the tooth-like structures, the height of these structures is defined by surfaces 36. Because the drive must be joined to the first border section of the drive support, Applicant further assumes the Examiner relies upon collar 26 as the drive support. Therefore, based upon Figs. 2, 4 and 6 of Hirsch, the drive profile is not less than one-half of the drive support height. Accordingly, Hirsch does not anticipate Claim 9. Therefore, Claim 9 is allowable.

With respect to Claim 10, Hirsch fails to disclose a member having three drive sections. Indeed, Hirsch discloses six drive sections. Accordingly, Hirsch does not anticipate Claim 10. Therefore, Claim 10 is allowable.

Claim 12 adds additional structures to that recited in Claim 1, including a second border section and second drive to create an inner and an outer drive radially spaced from each other. Hirsch only discloses a single drive structure, not two drives at different radial locations. Therefore, Hirsch does not anticipate Claim 12. Accordingly, Claim 12 is allowable.

Claims 13 and 14 are somewhat similar to Claim 12 in that two drives having different positions are claimed. Hirsch fails to show the dual structure claimed. Accordingly, Claims 13 and 14 are also allowable.

Independent Claim 15 is also distinguishable from Hirsch. Applicant has incorporated elements from Claim 19 into Claim 15. As previously stated with respect to Claims 12-14, Hirsch fails to disclose a member having two drives where the drives are located at different positions. Thus, Hirsch does not anticipate Claim 15 as amended. Accordingly, Claim 15 and dependent Claims 16-18 and 20-22 are allowable over Hirsch.

Flax U.S. Patent 3,446,688 discloses an apparatus for spin welding a thermoplastic end piece to the end of an open-ended thermoplastic tubular body. More specifically, nozzle 7 is thermoplastically welded to an open end of tubular body 8. Mandrel 1 includes a head element 5 which is doubly frustoconical in shape. The upper frustoconical bearing surface 9 engages rib surface 25 of the nozzle 7. Socket 3 aligns nozzle 7 relative to the open end of the tubular portion 8 and forces shoulder portion 17 of tubular portion 8 to abut against external face 27 of the nozzle. Rotation of the mandrel causes the nozzle to thermoplastically weld to the tubular section.

With respect to Claim 15, Flax does not disclose a member having first and second portions and each having a drive support and a border section, that are positioned at different distances from a common center. Accordingly, independent Claim 15 and dependent Claims 21 and 22 are not anticipated by Flax.

Claim 13 is not rendered obvious by the combination of Flax and Hirsch. First, contrary to the Examiner's position, and similar to Claim 6, Hirsch does not disclose the recited flat. Moreover, the Examiner acknowledges Flax lacks this element. Because the cited references fail to disclose or suggest the claimed invention, Claim 13 is not obvious based upon the combination of Flax and Hirsch. In addition, neither reference discloses a member having a first drive member at an outer edge of the member and a second drive member inside of said first drive member such that the distance of the two drive members from the drive support center is different. Given the failure of Flax and/or Hirsch to disclose this claimed structure, neither of these references, alone or in proper combination, render Claim 13 obvious. Accordingly, Claim 13 is allowable.

Finally, new Claims 29-32 are allowable over the art of record. With respect to Claims 29 and 30, none of the references show a self-centering member. In Hirsch, the threaded aperture 16 engages bolt 18, but it is not self-centering. In Flax, the socket 3 centers the nozzle 7, therefore, it is not self-centering either. Claim 31 requires that the drive contact substantially all of each of the drive face walls. This is possible because of the flat portion adjoining the base of the drive face wall. The flat portion permits the driver to extend to the base of the drive face wall and fully engage the drive face wall. Claim 32 is allowable at least because the cited prior art lacks the claimed flat and self-centering capabilities.

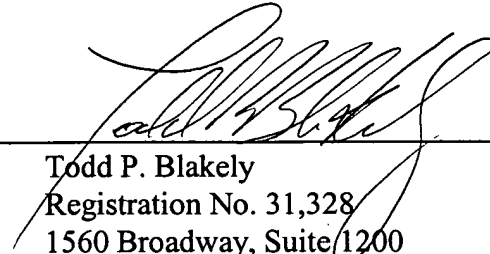
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In view of the foregoing, Applicant believes Claims 1-18 and 20-22 are in condition for allowance and such action is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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